



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Teruhiko Hagiwara

Application No.: 09/803,819

Group Art Unit: 2862

Filed: March 13, 2001

Examiner: Feick, Emily

For: NMR LOGGING USING TIME-DOMAIN
AVERAGING

Attorney Docket No.:
7420-081-999

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This responds to the Office Action dated June 11, 2002 for the above-identified patent application. Applicant has attached: Appendix A, a marked-up version of amended paragraphs in the specification; Appendix B, a marked-up version of the amended claims; Appendix C, a clean copy of the claims that will be pending upon entry of the present amendment. Please amend the application as follows.

IN THE SPECIFICATION

Please replace the third paragraph on page 6 of the application with the following paragraph.

To reduce the effect of random noise, it is commonly practiced to stack echo-trains from a multiple number of events. Fig. 3 illustrates the basic idea behind stacking. The top portion of the figure illustrates single-event echo train obtained from a tool moving in the direction z having a given intrinsic vertical resolution determined primarily by the dimensions of the tool. The bottom portion of the figure shows the effect of multi-event stacking, which clearly reduces the noise considerably, but also acts to change the apparent vertical resolution of the tool.

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